REMARKS

This Amendment responds to the Final Office Action mailed March 6, 2007 in the above-identified application. A Request for Continued Examination (RCE) accompanies this Amendment. Accordingly, entry of the Amendment and allowance of the application are respectfully requested.

Claims 1-16 were previously pending in the application. By this Amendment, independent claims 1 and 15 have been amended. Claims 4, 8 and 9 have been canceled without prejudice or disclaimer. Accordingly, claims 1-3, 5-7 and 10-16 are currently pending. The amendments find clear support in the application as filed at least at page 24, lines 5-26. No new matter has been added.

The Examiner has rejected claims 1-7 and 10-16 under 35 U.S.C.§102(e) as anticipated by Schmidt (U.S. Patent No. 6,782,465). Claims 8 and 9 are rejected under 35 U.S.C.§103(a) as unpatentable over Schmidt in view of Patariu, et al. (U.S. Publication No. 2004/0208314). The rejections are respectfully traversed in view of the amended claims.

Schmidt discloses a linked list DMA descriptor which includes an indication of a number of data pointers contained in a subsequent DMA descriptor (abstract). An example of a linked list of DMA descriptors is shown in Fig. 2 of Schmidt. The linked list includes a first descriptor 20, a second descriptor 30 and a subsequent descriptor 44 (col. 2, lines 36-51). The second descriptor 30 includes two data pointers 36 and 40 that reference two data blocks to be moved. Words 34 and 36 store the length of a first data block (256 bytes) and its address, and words 38 and 40 reference a second data block (32 bytes) and its address (col. 2, lines 55-61).

Amended claim 1 is directed to a DMA controller comprising a DMA data path for transferring data from a DMA source to a DMA destination, and channel control logic for controlling transfer of data through the DMA data path in response to parameters contained in at least one DMA descriptor having a programmable format, wherein each DMA descriptor defines a single DMA transfer, wherein the DMA descriptor includes a next descriptor pointer that points to a next descriptor in a descriptor list, wherein the next descriptor pointer is selected from (1) none, which indicates descriptor array mode, (2) half of the next descriptor pointer,

which indicates small descriptor list mode, and (3) all of the next descriptor pointer, which
indicates large descriptor list mode, and wherein the DMA descriptor further includes a flow
mode that defines a next operation selected from an autobuffer mode, the descriptor array mode,
the small descriptor list mode and the large descriptor list mode.

Schmidt does not disclose or suggest a DMA descriptor wherein "the next descriptor
pointer is selected from (1) none, which indicates descriptor array mode, (2) half of the next
descriptor pointer, which indicates small descriptor list mode, and (3) all of the next descriptor
pointer, which indicates large descriptor mode, and wherein the DMA descriptor further includes
a flow mode that defines a next operation selected from an autobuffer mode, the descriptor array
mode, the small descriptor list mode and the large descriptor list mode," as required by amended
claim 1. Schmidt, by contrast, discloses a DMA descriptor that includes a next descriptor
pointer and two bits that store the number of data pointers in the subsequent descriptor. Thus,
Schmidt contains no disclosure or suggestion of different next descriptor formats or of a flow
mode that defines the next operation, as claimed.

Patariu does not provide teachings that are lacking in Schmidt. Patariu describes a
descriptor that includes an operation select and a mode select. However, Patariu does not
disclose or suggest a next descriptor pointer having different next descriptor formats and does
not disclose a flow mode that defines the next operation selected from an autobuffer mode, the
descriptor array mode, the small descriptor list mode and the large descriptor list mode, as
required by amended claim 1.

Neither cited reference discloses the limitations of amended claim 1. For these
reasons, amended claim 1 is clearly and patentably distinguished over Schmidt, taken alone or in
combination with Patariu, and withdrawal of the rejection is respectfully requested.

Claims 2, 3, 5-7 and 10-14 depend from claim 1 and are patentable over the cited
references for at least the same reasons as claim 1.

Amended claim 15 is directed to a method for DMA transfer comprising providing a
DMA datapath for transferring data from a DMA source to a DMA destination, and controlling

transfer of data through the DMA datapath in response to parameters contained in at least one DMA descriptor having a programmable format, wherein each DMA descriptor defines a single DMA transfer, wherein the DMA descriptor includes a next descriptor pointer that points to a next descriptor in a descriptor list, wherein the next descriptor pointer is selected from (1) none, which indicates descriptor array mode, (2) half of the next descriptor pointer, which indicates small descriptor list mode, and (3) all of the next descriptor pointer, which indicates large descriptor list mode, and wherein the DMA descriptor further includes a flow mode that defines a next operation selected from an autobuffer mode, the descriptor array mode, the small descriptor list mode and the large descriptor list mode.

Amended claim 15 contains method limitations that parallel the apparatus limitations of claim 1. Amended claim 15 is patentable over Schmidt, taken alone or in combination with Patariu, for the reasons discussed above in connection with claim 1. Accordingly, withdrawal of the rejection is respectfully requested.

Claim 16 depends from claim 15 and is patentable over the cited references for at least the same reasons as claims 1 and 15.

Based upon the above discussion, claims 1-3, 5-7 and 10-16 are in condition for allowance.

CONCLUSION

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Dated: June 6, 2007   Respectfully submitted,
X06/06/2007

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